REMARKS

This is in response to the Office Action mailed on December 29, 2005, in which claim 1 was rejected under 35 U.S.C. § 102(e) as being unpatentable over Mathewes et al. (U.S. Pat. No. 6,751,520); claims 2-11 were objected to as being allowable but dependent upon a rejected base claim; and claims 12-37 were allowed. With this Amendment, claims 1, 2, 5-7, 9, and 10 to remove the means language from the claims, claim 21 is amended to cure an antecedent basis issue, and new claims 38-42 are added. Claims 1-42 are pending in the present application.

Claim 1 was rejected under 35 U.S.C. § 102(e) as being unpatentable over Mathewes et al. In order to reject a claim under § 102(e), the reference must teach each and every limitation of the claims. MPEP 2131; *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 2 USPQ2d 1051 (Fed. Cir. 1987). With this Amendment, claims 1, 2, 5-7, 9, and 10 are amended to remove the means language from the claims. Amended claim 1 recites a manufacturing system including "a storage device ... for electrically storing information." The Office Action points to paint gun 20 in Mathewes et al. as disclosing the storage device as recited in claim 1. The Office Action asserts that a "paint gun inherently includes a storage means for storing paint to be sprayed." "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the prior art." MPEP 2112; *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). In addition to the fact that Mathewes et al. do not even disclose the location of the paint sprayed by paint gun 20, the examiner has not provided either a basis in fact or technical reasoning as to how the inherent paint container on the paint gun *electrically stores information*. Thus, the storage device in the system as disclosed in claim 1 of the present application is not taught by Mathewes et al.

In addition, amended claim 1 requires "an intrinsic safety barrier ... to limit electrical energy passing to the communication device." In order to allow for the use of the storage device and the communication device in the hazard zone, consideration must be made for safety and protection against the

possibility of ignition, since this electrical equipment could potentially cause ignition of hazardous substances in the hazard zone. In particular, consideration must be given to limiting electrical energy at potential sources of ignition in electrical circuits (e.g., the controller) to such low levels that even under abnormal conditions there is no possibility of the electrical energy igniting an explosive atmosphere in the hazard zone. Page 8, lines 9-16. The intrinsic safety barrier limits the electrical energy flowing from the controller to the communication device. Page 8, lines 17-20.

Mathewes et al. disclose an intrinsically safe control system 40 for paint gun 20 of robot 12. Intrinsically safe control system 40 includes main controller 42 and gun controller 44, wherein main controller 42 (which may be in hazardous zone 28 or safe zone 30) is connected to gun controller 44 by communication network 46, and gun controller 44 (which is located in hazardous zone 28) is connected to paint gun 20 to generate control signals to operate a paint gun regulator 21 to control flow, distribution, and dispersion of paint output from paint gun 20. Col. 3, lines 16-44. The control signals exchanged between main controller 42 and gun controller 44 on communication network 46 utilize fiber interconnection to maintain intrinsically safe operation. Col. 3, line 65 to col. 4, line 1. In addition, each component of gun controller 44 operates in an intrinsically safe mode. Col. 5, lines 64-65. For example, microprocessor bank 52 includes three microprocessors in order to limit the operating power required for any one microprocessor to maintain operation within an intrinsically safe range. Col. 6, lines 6-10. In other words, each electrical component of control system 40 (and in particular gun controller 44) is specifically designed to limit the amount of energy produced, thus making the overall system intrinsically safe.

In contrast, the system as recited in claim 1 requires "an intrinsic safety barrier located in the non-hazard zone and connected between the communication device and the controller to limit electrical energy passing to the communication device." That is, the system of claim 1 requires a separate electrical component that limits the electrical energy passed between the non-hazard zone (i.e., from the controller) to the hazard zone (i.e., to the communication device). Thus, the intrinsic safety barrier in the system as disclosed in claim 1 of the present application is not taught by Mathewes et al.

Therefore, because Mathewes et al. fail to teach or fairly suggest the intrinsic safety barrier or the storage device as recited by claim 1, the recited elements of claim 1 are not disclosed by Mathewes et al., and the rejection of claim 1 under 35 U.S.C. § 102(e) should be withdrawn.

Claims 2-11 were objected to as being allowable but dependent upon a rejected base claim. In that claim 1 is in condition for allowance, and claims 2-11 depend therefrom, the objection to claims 2-11 should be withdrawn.

The allowance of claims 13-37 is acknowledged.

New Claims

With this Amendment, new claims 38-42 are added, which are directed to applications for the systems disclosed in claims 1, 12, and 32. Claim 38 depends from claim 1, claims 39 and 40 depend from claim 12, and claims 41 and 42 depend from claim 32. Support for new claims 38, 39, and 41 is found in the specification, particularly at page 9, lines 24-27, and support for new claims 40 and 42 is found in the specification, particularly at page 6, lines 17-25. Consideration and allowance of new claims 38-42 are respectfully requested.

CONCLUSION

In view of the foregoing, it is believed that all claims in the present application are in condition for allowance. Reconsideration and allowance of claims 1-37 are respectfully requested. Also, consideration and allowance of new claims 38-42 are respectfully requested.

Respectfully submitted,

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